
What is a Tiger Team?

Introduction to Your DOE Technical Assistance



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What is a Tiger Team?

- A group of subject matter experts that temporarily assembles to address a difficult problem.
- A Solar Tiger Team is a multi-institutional group focused on helping your city make solar energy mainstream and serve as a model for other cities to follow.



The most famous Tiger Team Lead was NASA Director Gene Kranz. He, his team, and the Apollo 13 astronauts won the Presidential Medal of Freedom for their heroism.



How does a Tiger Team Work?



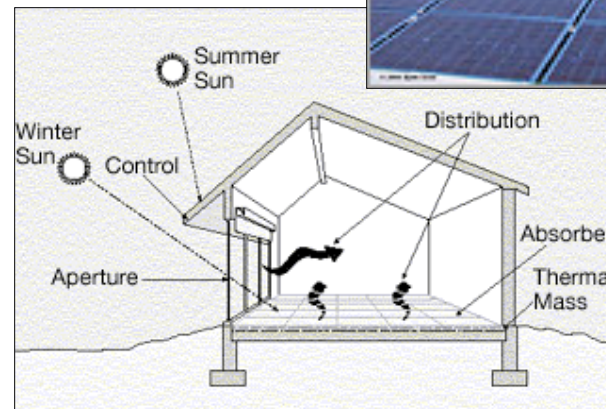
- A Tiger Team Lead is named and forms a team consisting of specialists from National Labs, Universities, Solar Centers, corporations, and local companies
- The Tiger Team Lead is the City's point of contact for solar technical assistance
- The Tiger Team Lead and DOE GO Project Officer will work with the City in the first 60 days to develop a Statement of Work (SOW) and Project Plan
- The Tiger Team will provide the solar technical assistance to the City within a planned budget and schedule (on average \$200,000 in Year 1, \$50,000 in Year 2)
- The Tiger Team will not perform any decision-making for city on construction or installation of solar systems



What Kind of Technical Assistance can they provide?



- Photovoltaics (PV)
- Solar Water Heating (SHW)
- Concentrated Solar Power (CSP)
- Solar water/air heating technologies (SWAH)
- Solar Resource Assessment



Areas of Potential Technical Assistance (1)



Solar Technology Assistance:

- **Technology Selection:** Determine appropriate technology solutions for desired applications.
- **User Training:** Ensure appropriate user training for long-term project sustainability.
- **Monitoring:** Conduct performance monitoring of installed PV systems, through the installation of data acquisition systems, field testing, and remote monitoring.

City/Municipal Planning:

- **City Planning:** Help incorporate solar into municipal-scale energy, emergency preparedness and environmental plans.
- **Regulatory Support:** Provide expertise in regulatory issues associated with solar energy systems projects (e.g., zoning, permitting).
- **Policy Making Assistance:** Contribute “best practices” and technical data to assist cities in making policy decisions.

Market/Financial Support:

- **Project Financing:** Provide analysis on solar options available and facilitate interface with the financial community.
- **Insurance:** Provide guidance on insurance issues for solar energy systems.
- **Market Analysis and Consumer Behavior:** Provide expertise in market trends and consumer behavior.



PV Installer Training

Areas of Potential Technical Assistance (2)



Architectural/Structural Support:

- **Building Codes Review:** Review city building code and suggest revisions that are “solar friendly.”
- **Architecture:** Provide architectural expertise to help ensure projects are well integrated into existing and new construction.
- **Structural Analysis:** Provide expertise in building-mounted solar systems, where issues of weight, wind, and loading must be taken into account.

Technical Project Implementation:

- **Preparation of bid specifications:** Help develop performance specifications for the procurement of residential, commercial, and industrial scale solar energy projects.
- **Review of bids received.**

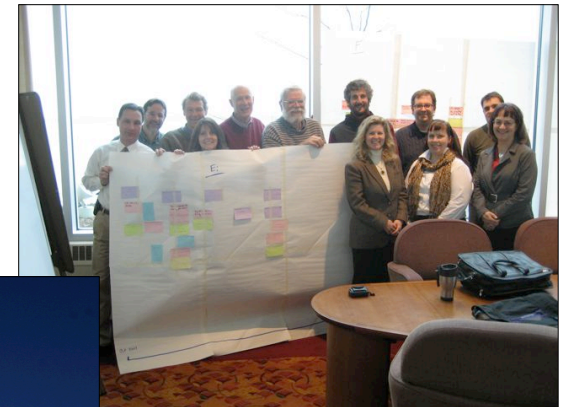
Communications:

- **Outreach:** Help conduct outreach activities to share “success stories” with city residents and others.
- **Best Practices:** Help develop “best practices” models based on city’s solar experiences that could benefit other Cities.



Tiger team taking power quality measurements of Xantrex 30 kW inverter in Tucson, AZ.

Examples of Solar Technical Assistance



Developing a Technical Assistance Plan



- All cities will have to develop a **Statement of Project Objectives** (SOPO) - This is similar to a statement of work **the city** will perform during the duration of the award.
- In support of the SOPO, the City, the Tiger Team, and the Golden Field Office (GFO) will develop a **Memorandum of Agreement** (MOA) that defines the interaction between the City and the Tiger Team.
- Part of the MOA will be the **Statement of Work** the Tiger Team will perform for the City. This document will be developed by
 - The Lead from the City and its Partners
 - The Tiger Team Lead
 - The Project Officer (PO) from the DOE Golden Field Office

Solar America Cities

Fact Sheet June 2007

Technical Assistance Process

What is Technical Assistance?

In your city's proposal, you identified the technical assistance your project might require. DOE will provide tailored technical assistance to your city through appointed tiger teams.

Some types of technical assistance available to support projects are listed below:

Who Provides the Technical Assistance?

A tiger team lead for each city is appointed by DOE. Additional members of the tiger team will be selected based on your city's specific technical assistance needs.

What is a "Tiger Team"?

A "tiger team" is a group of individuals assembled for a temporary purpose, such as technical assistance to your city, then disassembled upon completion. After your city's needs are known, a tiger team will be formed that specifically addresses those needs. Members of the tiger team are drawn from the National Renewable Energy Laboratory (NREL) in Colorado, Sandia National Laboratories (SNL) in New Mexico, and the Southwest and Southeast Regional Experiment Stations (RESs) at New Mexico State University and the Florida Solar Energy Center, respectively. DOE will also secure additional tiger team members as needed, primarily for non-solar expertise, and will attempt to find local tiger team members from your city.

What Happens Next?

Your tiger team lead will contact the appropriate person at your city to discuss your project's technical assistance needs. Following this preliminary discussion, your city can expect a site visit. The purpose of the site visit is to identify specific technical assistance needs, resulting in the optimal composition of the tiger team and development of an approximately two-year project plan.

We look forward to working with you!

The Tiger Team Leads:

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You will be contacted by one of these individuals.

Technical Assistance

- Solar Technology Assistance**
Technology selection, user training, monitoring
- City/Municipal Planning**
City planning, regulatory support
- Market/Financial Support**
Project financing, insurance, market analysis, and consumer behavior
- Architectural/Structural Support**
Building codes review, architectural review, structural analysis
- Technical Project Implementation**
Preparation of bid specifications
- Communications and Outreach**
Media outreach to city residents

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Best-Practice Guide for the Cities



- Outreach
- Training
 - Installers
 - Code officials
- Financial Incentives
 - Low Interest Loan Programs
 - Property Tax Incentives
 - Expedited Permitting
- Rules Regulations and Policies
 - Solar Access Laws
 - Net Metering and Interconnection Policies
 - Energy Standards for Public Buildings

SOLAR IMPLEMENTATION PLAN FOR CITIES AND STATES

KEY ITEMS TO CONSIDER



National Environmental Policy Act (NEPA)

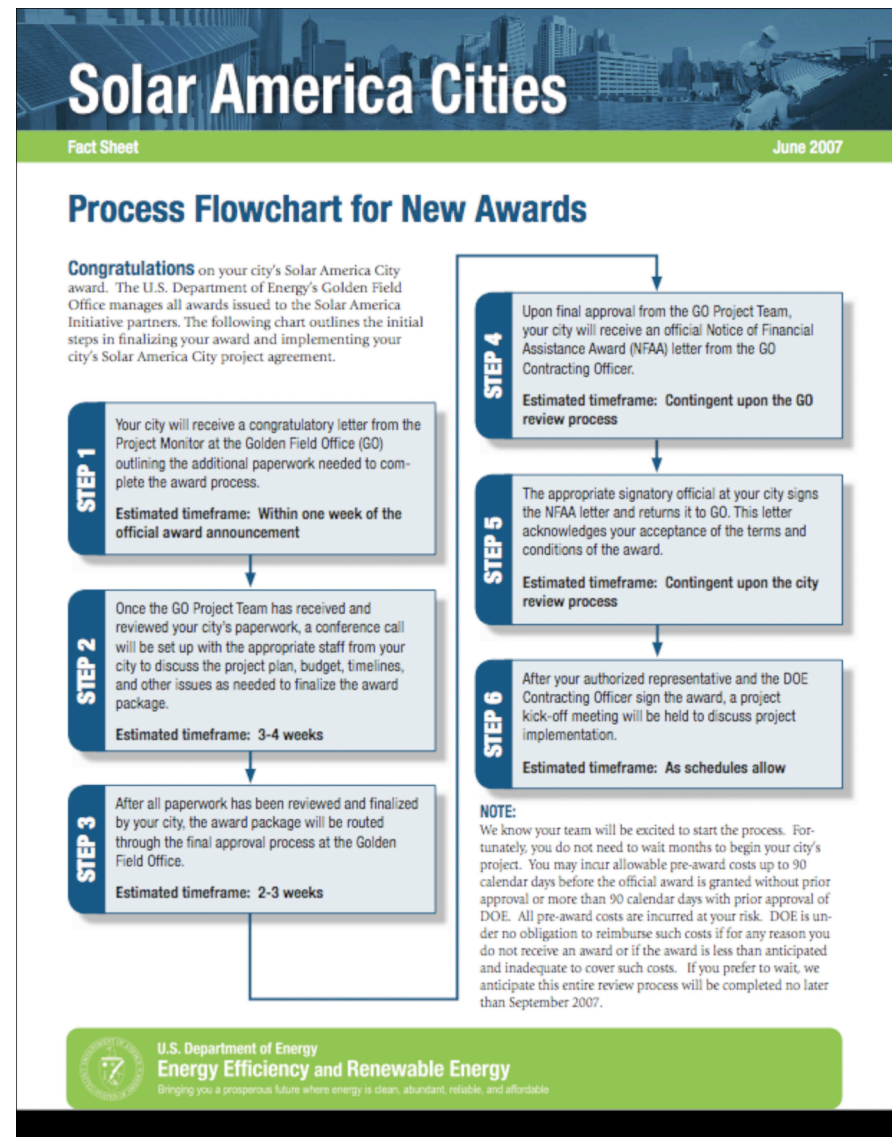


- Any action involving the purchase and Installation of PV systems using DOE funds may require further NEPA analysis and site characterization which can cause long delays in implementing a project.
- DOE must consider the environmental consequences of any “federal” action, including the funding of your projects. DOE must identify the environmental consequences of the proposed activity and work with you to mitigate any impacts on the environment. DOE must allow for public review and comment during this process.
- If you do not want to subject your project to the NEPA process, you have the option of funding your installation with non-federal or cost share dollars.



Timeline

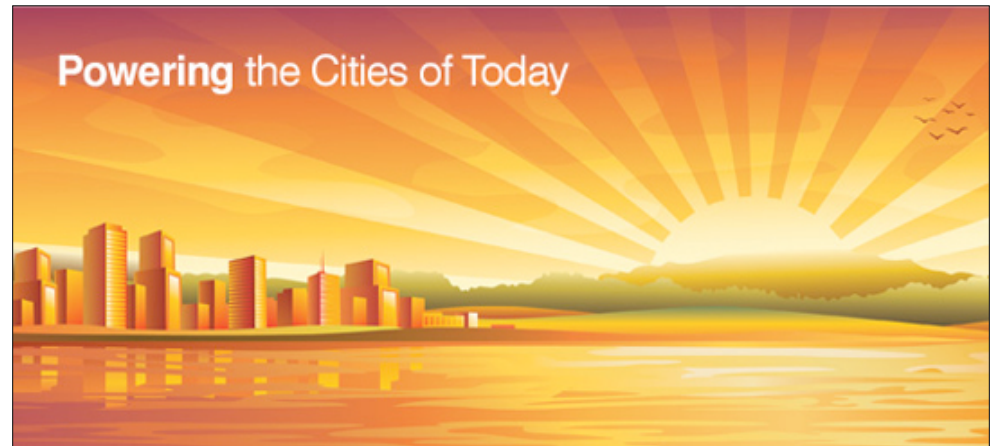
- Day 1: City Notified of Award by Project Officer (PO)
- Project Officer works with City on the development of the Statement of Project Objectives (SOPO) and the Financial Assistance Award (FAA)
- Tiger Team Lead assigned to City
- Tiger Team Lead, City Lead, and Project Officer work to develop a technical assistance statement of work
- Day 60: Tiger Team submits initial technical assistance Statement of Work to Golden Field Office
- Day 90: The Memorandum of Agreement between the City and DOE is signed by all parties
- Technical Assistance Happens



Making Solar Mainstream Citywide and Nationwide



- Playing as a Local-Federal Team
- The DOE Vision from Above, Tiger Team Technical Assistance from Below, Your City right in the middle
- Making Tiger Teams Real, Technically Substantive, and Exceptional
- Moving towards the National Solar Vision from Today's Cold, Hard Reality
- The people who will serve you and the country



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